

**Notice of Allowability**

Application No.

10/612,388

Examiner

Carl H. Layno

Applicant(s)

KIM ET AL.

Art Unit

3766

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Papers filed on August 9, 2006.
2. ☒ The allowed claim(s) is/are 1-45.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 10/2/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

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### **DETAILED ACTION**

1. Acknowledgment is made of applicant's amendment and 2-month extension of time, which were received by the Office on August 9, 2006.

2. Claims 1-45 are active and pending.

#### ***Information Disclosure Statement***

3. Acknowledgment is made of applicant's Information Disclosure Statement (PTO-1449), which was received by the Office on October 2, 2006.

#### ***Drawings***

4. The drawings were received on August 9, 2006. These drawings are approved by the Examiner.

#### ***Claim Rejections - 35 USC § 102/103***

5. Upon further reconsideration of applicant's arguments and amendments to the claims, the Examiner is withdrawing the 35 U.S.C 102(b) and 102(e) rejections of Hartley et al (US 6,076,015) and Poore (US 2003/0032991), and the 102(e)/103(a) rejection of Baura et al (US 6,561,986), which were made against claims 1, 9-12, 14, 15, 20, 21, 23-26, 28, 32-34, 41, and 43-45 in the last Office action.

***Examiner's Amendment***

6. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Zhengnian Tang on October 11, 2006.

The application has been amended as follows:

-Please Re-write claim 1 to read as follows:

"1. A cardiac rhythm management device, comprising:  
a sensor for obtaining a signal indicative of an action of a heart;  
an impedance measurement circuit adapted to measure transthoracic impedance;  
means for processing the signal indicative of the action of the heart to sample the transthoracic impedance at sampling intervals commenced by fiducial markers in the signal indicative of the action of the heart, the sampling of the impedance signal removing the component of a stroke volume of the heart from the signal and thereby providing ventilation information; and  
a therapy circuit for generating and delivering cardiac rhythm management therapy to a patient."

-Claim 9, line 8, change the phrase "signal processor adapted to detect" to the words "signal processor programmed to detect", and

-Claim 32, lines 11-12, change the phrase "and adapted to detect" to the words "and programmed to detect".

***Allowable Subject Matter***

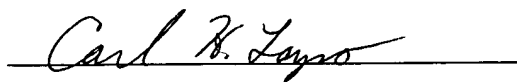
7. Claims 1-45 are allowed.

*Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl H. Layno whose telephone number is (571) 272-4949. The examiner can normally be reached on 9/4/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



CARL LAYNO  
PRIMARY EXAMINER

CHL  
10/11/2006